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**DATE OF REVIEW:** 12/23/2007

**IRO CASE #:**

**DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:**

360 L5-S1 Spinal Surgery

**A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:**

This case was reviewed by a Texas licensed MD, specializing in Orthopedic Surgery.

**REVIEW OUTCOME:**

Upon independent review the reviewer finds that the previous adverse determination/adverse determinations should be:

Upheld

Health Care Service(s) in Dispute	CPT Codes	Date of Service(s)	Outcome of Independent Review
360 L5-S1 Spinal Surgery	22558, 64999, 22851, 63047, 22612, 22840	Upon approval	Upheld

**INFORMATION PROVIDED TO THE IRO FOR REVIEW:**

Documentation:	Date:
EMG/NCS - MD	12/06/04
CT scan lumbar spine wo contrast –Imaging Asso.	09/28/06
Initial Chart Note –MD	08/08/07
Operative Report – Lumbar discography at L5-S1 –MD	09/17/07
CT Scan lumbar spine wo contrast	09/17/07
Chart note –MD	09/26/07
Psychological Re-Evaluation -- Psychologist	10/24/07
Utilization Review Request – Spinal Surgery –MD	11/01/07
Utilization Review Determination – Adverse determination – Inpatient Spinal Surgery 3 day Length of stay - ODG guidelines with specific criteria included –	11/07/07
Utilization Review Reconsideration Request – Spinal Surgery –MD	11/15/07
Utilization Review Appeal Determination – Adverse determination – Inpatient Spinal Surgery 3 day Length of stay - ODG guidelines with specific criteria included –	11/27/07
Company's response regarding disputed services –	12/04/07

### **PATIENT CLINICAL HISTORY [SUMMARY]:**

The patient is a xx year old white male who smokes 2 packs per day and has done so for over 20 years. He injured his back while pulling up a tent at a grave yard site. He fell on his back when someone pushed the tent. He developed LBP and ultimately had laminectomies/discectomies at L4-5 and L5-S1. He got relief for 2 months. The pain recurred in his back and bilateral lower extremities. He had spinal cord stimulator implantation, which gave him relief for 8 months. Then he stopped using it because it was causing electric shocks down his leg.

The patient had a non-contrast CT scan on 09/28/06 which revealed multi-level facet arthrosis, most prominent on the right at L5-S1. A right L4-5 paracentral small disc protrusion was seen. There were no signs of canal or foraminal stenosis per radiologist report. An EMG performed on 12/06/04 revealed only mild neurogenic denervation of the L5 and S1 nerve roots. There was no evidence of radiculopathy. A CT scan done post-discography revealed that the injection at L5-S1 was into the right lateral annulus and not into the disc space. The patient was reported to have had concordant 7-8/10 pain at this level. The L3-4 and L4-5 injections had not elicited pain.

### **ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION:**

There is no documentation of radiculopathy or instability in this patient. This major invasive procedure (L5-S1 360 degree fusion with internal fixation) is being recommended only on the basis of subjective complaints of pain and positive discography at L5-S1. The CT scan revealed only post-op changes at L4-5 and L5-S1 with multi-level facet arthrosis and degenerative disc changes, severe at L5-S1. The right L4-5 small disc protrusion is more likely than not due to post-op fibrosis or scarring. The report stated there was only "some mild canal narrowing but no significant neural canal narrowing".

A post-discogram CT done 09/17/07 also did not reveal canal or foraminal stenosis. Dr. states there is significant spinal stenosis and a herniated disc at L5-S1. However, the reports and the physical examinations do not support these diagnoses. Additionally, discography is a controversial diagnostic tool and its value in selecting patients who would benefit from spinal fusion remains controversial (Orthopedic Knowledge Update #2, p 344 and The Agency for healthcare Policy and Research). If a discogram is performed on normal people with no back symptoms, about 50% will have an abnormal discogram (Carragee, Spine 1999). Of those patients with somatization disorder and no LBP (psychological problems manifested as bodily complaints), 83% will have an abnormal study (Carragee, Spine, 1999). Studies have shown that patients with concordant pain on discography have much lower pain tolerance levels when compared with non-responsive discography (Spine, Vol 5, 2005). Concordance of pain is also of limited diagnostic value because it is common in non-back issue patients and inaccurate in patients with chronic pain and/or abnormal psychological profile (ACOEM, Chap 12, p 304, 2004). What is clear from 40+ frustrating years of discography research is that not everyone who reports pain when a disc is injected has the same clinical problems. The best indicator that these patients do not have the same disc problem is that each successive approach to the treatment of patients with "positive discograms" has failed to give consistent good results (Carragee, Stanford University Spine, Volume 24, Number 4, page 372, 1999). Consequently, discography should not be used as a stand alone procedure upon which surgery is performed. This information should be correlated with the patient's history, objective physical findings, results of other diagnostic evaluations and psychological evaluation. A positive discogram is just one test and it does not equate with surgery (North American Spine Society, Contemporary Spine Care, "Lumbar Discography", pgs 1-21, 2001).

Spinal fusion is not recommended for patients who have less than six months of failed recommended conservative care unless there is objectively demonstrated severe structural instability and/or acute or progressive neurologic dysfunction, but recommended as an option for spinal fracture, dislocation, spondylolisthesis or frank neurogenic compromise, subject to the selection criteria outlined in the section below entitled, "Patient Selection Criteria for Lumbar Spinal Fusion," after 6 months of conservative care.

There is limited scientific evidence about the long-term effectiveness of fusion for degenerative disc disease compared with natural history, placebo, or conservative treatment. For chronic LBP, exercise and cognitive intervention may be equivalent to lumbar fusion without the potentially high surgical complication rates. ([Ivar Brox-Spine, 2003](#)) ([Keller-Spine, 2004](#)) ([Fairbank-BMJ, 2005](#)) ([Brox, 2006](#)). *Lumbar fusion in workers' comp patients:* In cases of workers' compensation, patient outcomes related to fusion may have other confounding variables that may affect overall success of the procedure, which should be considered. Until

further research is conducted there remains insufficient evidence to recommend fusion for chronic low back pain in the absence of stenosis and spondylolisthesis, and this treatment for this condition remains "under study." It appears that workers' compensation populations require particular scrutiny when being considered for fusion for chronic low back pain, as there is evidence of poorer outcomes in subgroups of patients who were receiving compensation or involved in litigation. ([Fritzell-Spine, 2001](#)) ([Harris-JAMA, 2005](#)) ([Atlas, 2006](#)) Despite poorer outcomes in workers' compensation patients, utilization is much higher in this population than in group health. ([Texas, 2001](#)) ([NCCI, 2006](#)) Presurgical biopsychosocial variables predict patient outcomes from lumbar fusion, which may help improve patient selection. Workers' compensation status, smoking, depression, and litigation were the most consistent presurgical predictors of poorer patient outcomes. Other predictors of poor results were number of prior low back operations, low household income, and older age. ([DeBerard-Spine, 2001](#)) ([DeBerard, 2003](#)) ([Devo, 2005](#)) ([LaCaille, 2005](#)) ([Trief-Spine, 2006](#)) Obesity and litigation in workers' compensation cases predict high costs associated with interbody cage lumbar fusion. ([LaCaille, 2007](#)). Patient Selection Criteria for Lumbar Spinal Fusion:

For chronic low back problems, fusion should not be considered within the first 6 months of symptoms, except for fracture, dislocation or progressive neurologic loss. Indications for spinal fusion may include: (1) Neural Arch Defect - Spondylolytic spondylolisthesis, congenital unilateral neural arch hypoplasia. (2) Segmental Instability (objectively demonstrable) - Excessive motion, as in degenerative spondylolisthesis, surgically induced segmental instability and mechanical intervertebral collapse of the motion segment and advanced degenerative changes after surgical discectomy. (3) Primary Mechanical Back Pain (i.e., pain aggravated by physical activity)/Functional Spinal Unit Failure/Instability, including one or two level segmental failure with progressive degenerative changes, loss of height, disc loading capability. In cases of workers' compensation, patient outcomes related to fusion may have other confounding variables that may affect overall success of the procedure, which should be considered. (4) Revision Surgery for failed previous operation(s) if significant functional gains are anticipated. Revision surgery for purposes of pain relief must be approached with extreme caution due to the less than 50% success rate reported in medical literature. (5) Infection, Tumor, or Deformity of the lumbosacral spine that cause intractable pain, neurological deficit and/or functional disability.

Pre-Operative Surgical Indications Recommended: Pre-operative clinical surgical indications for spinal fusion should include all of the following: (1) All pain generators are identified and treated; & (2) All physical medicine and manual therapy interventions are completed; & (3) X-rays demonstrating spinal instability and/or myelogram, CT-myelogram, or discography (see [discography criteria](#)) & MRI demonstrating disc pathology; & (4) Spine pathology limited to two levels; & (5) [Psychosocial screen](#) with confounding issues addressed. (6) For any potential fusion surgery, it is recommended that the injured worker refrain from smoking for at least six weeks prior to surgery and during the period of fusion healing. ([Colorado, 2001](#)) ([BlueCross BlueShield, 2002](#))

In addition to the above, this patient is a chronic smoker (2 packs per day for 20 years), is from a low-income household, is on disability income benefits, and has chronic depression. All of these are predictors of poor surgical outcomes.

Therefore, based upon all the above rationale, the previous decision of denying the requested surgical procedure is upheld.

#### **A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:**

ODG: 2007

**TEXAS DEPARTMENT OF INSURANCE COMPLAINT PROCESS:** the Texas Department of Insurance requires Independent Review Organizations to be licensed to perform Independent Review in Texas. To contact the Texas Department of Insurance regarding any complaint, you may call or write the Texas Department of Insurance. The telephone number is 1-800-578-4677 or in writing at: Texas Department of Insurance, PO Box 149104 Austin TX, 78714. In accordance with Rule 102.4(h), a copy of this Independent Review Organization (IRO) Decision was sent to the carrier, the requestor and claimant via facsimile or U.S. Postal Service from the office of the IRO on 12/23/2007.

